

**ABSTRACT**

In a phosphor whose host crystal is constituted of an oxide, a method of preparing the phosphor where the oxygen deficiencies in the phosphor are not many, and a plasma display device using the same are provided. After processes of weighing, mixing and filling powders of the phosphor, a process for firing in a reducing atmosphere and a process for firing in an oxidizing atmosphere after the last reducing atmosphere process are provided. In addition, a firing temperature in the oxidizing atmosphere process is not less than 600 °C and not more than 1000 °C.